

Financial Performance of the Major Oil Companies, 2007-2011

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Summary

Periods of rising oil prices can result in reduced economic growth, rising prices, and reduced disposable incomes for consumers, as well as a deteriorating trade balance. For the oil industry, periods of high oil prices generally imply increasing cash flows and higher profits. While some view the improvement in the industries' finances under these conditions as a business return no different than those earned in other industries, others view it as a windfall, a direct transfer from consumers, without any significant additional activity attributable to the industry. Although the U.S. oil industry is composed of many firms, to many the face of the oil industry is represented by the five major firms operating extensively in the U.S. market. These firms are ExxonMobil, Chevron, BP plc, Royal Dutch Shell plc, and ConocoPhillips.

Over the period 2007 to 2011, oil prices were volatile. They increased to a record peak in 2008, declined rapidly at the end of 2008 and early 2009, and increased through 2010, and remained high during 2011. The total revenues and net incomes of the five major oil companies followed a similar pattern. However, the companies' production of both crude oil and natural gas, their two key products, remained largely unchanged in the face of volatile prices, suggesting that for these firms, market price and the production of key products are not closely related.

During the period 2007 to 2011, the five major companies' upstream activities of exploration and production contributed more to the total profitability of the firms than the downstream activities of refining and marketing.

During the period, capital budgets were more stable than the price of oil, and the companies' exploration and production activities did little to increase their ability to produce oil or natural gas. The companies used their profits to carry out a number of activities, to include the distribution of dividends to shareholders, the repurchase of shares on the market to enhance investor holdings, and to carry out business strategies.

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Background

Periods of high oil prices are usually associated with reduced economic growth, a deteriorating foreign trade balance, and rising prices. High gasoline prices, the most tangible result of high oil prices for consumers, reduce discretionary family income and influence decisions with respect to automobile choice and use. However, for companies involved in the oil industry, high oil prices generally result in expanding revenues and cash flow, and in some cases, record profit levels.

While the oil industry is composed of hundreds of firms of various sizes doing business in different aspects of the oil supply chain, many characterize the industry through the performance of the five major integrated oil companies: ExxonMobil, Chevron, BP plc, Royal Dutch Shell plc, and ConocoPhillips. These companies are involved in all aspects of the oil supply chain from exploration and production through transportation, refining, and retail marketing, both in the United States and globally. They are also very large relative to the rest of the industry, and large even when compared to the economy as a whole; in 2011 their revenues were equivalent to over 10% of U.S. gross domestic product.¹

This report examines the financial performance of the five major oil companies for the period 2007-2011. Both the sources and uses of revenue and profit are analyzed. The recent behavior of oil prices and company profits have led to changes in the structure of the market for oil in the United States which could have implications for gasoline prices and availability, and energy security. These issues are also analyzed in this report.

Oil Prices

The price of oil is determined in the world market. However, there is not one price of oil, but many. Crude oil is quality graded by its specific gravity and its sulfur content.² Differences in quality of crude oil give rise to different prices for crude oil. Two types of crude oil, West Texas Intermediate (WTI) and Brent, play the role of reference crude oils. Their prices are standards against which other grades of crude oil prices are set. Although both the spot and futures prices of the reference crude oils are widely publicized, they do not necessarily represent the real prices of crude oil paid by refiners, or received by producers. The delivered price of crude oil also depends on its location.

The Energy Information Administration (EIA) publishes an oil price data set called the Refiners Acquisition Cost of Crude Oil, which represents the actual cost to refiners of crude oil. **Table 1** shows these data for the period 2007-2011.

The data in **Table 1** show the escalating price of oil from 2007 to 2008, reflecting the tight global market which was characterized by minimal excess capacity availability and rapidly growing demand in the emerging economies, especially China. The price of oil declined in the later months of 2008, and remained generally lower than 2008 levels through 2010, reflecting both consumers' response to the high prices of 2008 and the recession which began in December 2007.

¹ U.S. gross domestic product in current prices was about \$15 trillion in 2011, while the five major oil companies' revenues were \$1.8 trillion.

² Crude oil with high specific gravity and low sulfur content is called "light sweet crude," and oil with lower specific gravity and high sulfur content is called "heavy sour crude." There are a number of gradations between the lightest, sweetest crude and the heaviest, most sour crude.

Table 1. U.S. Refiners Acquisition Cost of Crude Oil

(dollars per barrel)

	2007	2008	2009	2010	2011
Composite	67.94	94.74	59.29	76.69	101.61
Domestic	69.65	98.47	59.49	77.96	100.29
Imported	67.04	92.77	59.17	75.88	102.55

Source: Energy Information Administration. Available at <http://www.eia.doe.gov>.**Notes:** 2011 data are through November 2011. The composite price is the weighted average of the prices of domestic and imported crude oils.

The high prices observed in 2011 are related to numerous actual and potential market disruptions on the supply side. The withdrawal of Libyan crude oil during the civil war in that country, and the Iranian threat to close the key transit point, the Strait of Hormuz, to oil trade are key examples.

Table 1 also shows that domestic crude oil is generally purchased at a higher price than imported crude, but this is likely due to quality differences rather than strict nationality characteristics. The reversal of the domestic/foreign price relationship in 2011 is likely related to the effects of the withdrawal of Libyan crude oil from the market, as none of the crude from that country typically is exported to the United States, but was used mostly in Europe.

Oil Company Revenues

The total revenues of the five major oil companies followed the pattern of oil price movements set out in **Table 2**. Revenues increased by 24% from 2007 to 2008, as oil prices increased by 38%. From 2008 to 2009 revenues declined by 36% as oil prices fell by 36%. As the price of oil recovered by 28% from 2009 to 2010, the five firms' revenues increased by 26%. 2011 brought a further 35% increase in oil prices, driving up the revenues of the five firms by 25%.

Table 2. Total Revenues of the Five Major Oil Companies

(billions of dollars)

	2007	2008	2009	2010	2011
ExxonMobil	404.5	477.3	310.6	383.2	486.4
Chevron	220.9	273.0	171.6	204.9	244.4
BP plc	291.4	365.7	246.1	308.9	386.4

	2007	2008	2009	2010	2011
Royal Dutch Shell plc	355.8	458.4	285.1	378.1	470.2
ConocoPhillips	194.5	246.2	152.8	198.6	251.2
Total	1,467.1	1,820.6	1,166.2	1,473.7	1,838.6

Source: Oil Daily, *Profit Profile Supplements*, various dates and company earning reports.

Notes: Total revenues result from global sales and other sources.

While total revenues for the five companies exhibited noticeable swings from 2007 to 2011, the business interests and activities of the companies with respect to production were stable. **Tables 3 and 4** show the production of crude oil and natural gas for the five companies for the years 2007 to 2011.

Table 3. Crude Oil Production of the Five Major Oil Companies
(millions of barrels per day)

	2007	2008	2009	2010	2011
ExxonMobil	2.6	2.4	2.4	2.4	2.3
Chevron	1.7	1.6	1.9	1.9	1.8
BP plc	2.4	2.4	2.5	2.4	2.1
Royal Dutch Shell plc	1.8	1.7	1.7	1.7	1.7
ConocoPhillips	1.0	1.0	1.0	1.0	0.7
Total	9.5	9.1	9.5	9.4	8.6

Source: Oil Daily, *Profit Profile Supplements*, various dates, and company earning reports.

The incentive of higher and/or rising oil prices in 2007-2008 and 2010-2011 did not result in observably higher production by the five major oil companies. Similarly, the disincentive of lower and/or falling oil prices did not result in observably lower production by the companies. Several possible explanations could exist for this apparent lack of response to market signals. For example, the companies could be making exploration and production decisions based on an internal planning price which might be different and more stable than the market price. The companies may be unsuccessful in finding and developing new production resources, except perhaps in volumes just sufficient to replace expended reserves and to keep production relatively constant. This lack of success might be due to geologic, political, or economic factors.

The five major oil companies seemingly have not behaved in accord with market economic theory with respect to output adjustments in relation to changing prices. That theory depends on the responsiveness of firms to price signals to expand output in times of higher and/or rising prices, and to provide reductions in output during lower and/or falling prices. In this way, price volatility in the market is reduced while keeping supply matched to demand. The oil market, with characteristics of low price elasticity of demand and supply, demand growth which responds to income growth, substantial time lags, and long-term challenges with calls for reduced consumption and alternative products, is difficult to fit into the model of free market adjustments.

Natural gas reserves, production, and consumption in the United States have increased in the last several years as the result of technologies and economics of non-conventional natural gas. Some have said the United States may have 100 years of reserves at current consumption rates, but others have been more sanguine.³

The big five oil companies have shown some interest in expanding their positions in the natural gas market, as suggested by the data in **Table 4**.

Table 4. Natural Gas Production of the Five Major Oil Companies
(MMcf/d)

	2007	2008	2009	2010	2011
ExxonMobil	9.4	9.1	9.3	12.1	13.1
Chevron	5.0	5.1	5.0	5.0	4.9
BP plc	8.1	8.3	8.5	8.4	7.5
Royal Dutch Shell plc	8.2	8.6	8.5	9.3	9.0
ConocoPhillips	5.1	4.8	4.9	4.6	2.9
Total	35.8	35.9	36.2	39.4	37.4

Source: Oil Daily, *Profit Profile Supplements*, various dates, and company earning reports.

ExxonMobil increased its production of natural gas by about 41% between 2009 and 2011. The company was able to achieve this expansion through its purchase of XTO Energy Inc., which was announced in December 2009. Chevron purchased Atlas Energy Inc. in 2010 to expand its natural gas reserve holdings. The companies' enhanced positions in the natural gas markets came as the wellhead price of natural gas was volatile and declining (see **Table 5**).

Table 5. U.S. Wellhead Price of Dry Natural Gas
(dollars per thousand cubic feet)

	2007	2008	2009	2010	2011
Wellhead Price	6.25	7.97	3.67	4.48	3.98

Source: Energy Information Administration, available at <http://www.eia.doe.gov>.

Notes: 2011 data are through November 2011.

Oil Company Profits

In accounting terms, profits are referred to as net income. Net income is total revenue minus all costs of operation, interest on debt, and taxes. Net income is the amount available to management to use for providing a return to shareholders, or pursuing strategic goals for the company. **Table 6** shows the net incomes of the five major oil companies from 2007 to 2011. The data in **Table 6** represent corporate earnings. Each business segment of the companies' operations contributes to the total. The most used aggregate measures of net income sources in the oil industry are the upstream (exploration and production) and downstream (refining and marketing) sectors.

³ Penn Energy Weekly Petroleum Update, *U.S. Shale Gas Reserve Estimates Plummet*, February 3, 2012. The article reports on reduced shale gas reserve estimates used by the U.S. Department of Energy in recent analytical work.

Net incomes of the five major oil companies generally follow the behavior of oil prices. Both 2008 and 2011 were record profit years for the industry. The two negative entries in **Table 6** are unrelated to oil price volatility. ConocoPhillips' loss in 2008 was associated with its Luk Oil venture in Russia. The company's adjusted income, or net income before the impact of special items, was over \$16.4 billion. BP's 2010 net income was affected by the costs to the company of the Macondo oil spill in the Gulf of Mexico. BP's adjusted income in 2010 was \$20.5 billion.

Table 6. Net Incomes of the Five Major Oil Companies

(millions of dollars)

	2007	2008	2009	2010	2011
ExxonMobil	40,610	45,220	19,280	30,460	41,060
Chevron	18,688	23,931	10,483	19,024	26,895
BP plc	17,287	25,593	16,578	-3,719	25,700
Royal Dutch Shell plc	27,564	26,277	12,518	20,127	28,625
ConocoPhillips	11,891	-16,998	4,858	11,358	12,436
Total	116,040	104,023	63,717	77,250	132,916

Source: Oil Daily, *Profit Profile Supplements*, various dates and company earnings reports.

Notes: Net income is earned from global operations. BP plc and Royal Dutch Shell plc net incomes are replacement cost profits and current cost of supplies profits, respectively, measures close to U.S. accounting standards.

Tables 7 and 8 show the upstream, exploration and production, and downstream, refining and marketing, net incomes of the five major oil companies.

Table 7. Upstream Net Incomes of the Five Major Oil Companies

(millions of dollars)

	2007	2008	2009	2010	2011
ExxonMobil	26,497	33,782	17,107	24,097	34,439
Chevron	14,816	27,710	10,431	17,677	24,786
BP plc	26,927	37,915	24,942	30,970	30,500
Royal Dutch Shell	14,686	20,235	8,354	15,935	24,687
ConocoPhillips	4,615	12,072	3,604	9,198	8,242

Source: Oil Daily, *Profit Profile Supplements*, various dates and company earnings reports.

Notes: Due to differences in European and U.S. accounting standards concerning the treatment of interest and tax payments, BP plc and Royal Dutch Shell plc upstream earnings may not be directly comparable to those of U.S. firms, potentially distorting the meaning of yearly totals.

Although the five major oil companies are integrated firms, the majority of their earnings come from exploration and production activities. For example, in 2011, ExxonMobil earned about 84% of its corporate profits from upstream activities. Chevron earned 92%, and ConocoPhillips earned 66% from upstream activities in 2011.

Downstream activities are important to the oil companies because crude oil itself has little consumer value. Only after refining, which breaks the crude oil down into a range of petroleum products, does value emerge. However, as shown by comparing data in **Table 6**, **Table 7**, and **Table 8**, the major oil companies derive relatively small portions of their total net incomes from downstream activities.

Table 8. Downstream Net Incomes of the Five Major Oil Companies
(millions of dollars)

	2007	2008	2009	2010	2011
ExxonMobil	9,573	8,151	1,781	3,567	4,459
Chevron	3,502	3,429	565	2,478	3,591
BP plc	2,617	4,176	4,517	7,239	5,474
Royal Dutch Shell plc	6,951	446	3,054	4,448	4,274
ConocoPhillips	5,923	2,322	37	192	3,751

Source: Oil Daily, *Profit Profile Supplements*, various dates and company earnings reports.

While the five major oil companies' downstream profits have not approached those of 2007, they have recovered from the lows of 2009. To the refining sector, the price of crude oil is a cost, and a possible deterrent, to profits. If the petroleum product markets are growing, based on rising incomes, and the sensitivity of demand to price increases is small, refiners may be able to pass on high crude oil prices directly to final consumers through product price increases, preserving profitability. If the product market is stagnant, a full pass-through of crude oil costs may not be possible. In that case, refining profits typically fall. The performance of the refining businesses of the five major oil companies in 2009 compared to 2008 is an example of the degree to which unfavorable economic conditions can reduce profitability. The high gasoline prices of 2008 coupled with the financial crisis and associated recession conspired to weaken demand in the product markets.

Some analysts claim that the refining industry needs major revisions to meet future world demand patterns. Excess capacity is thought to exist in North America and Europe, and a shortage of capacity may exist in Asia.⁴ Some evidence of transition in the U.S. market has been observed. ConocoPhillips announced in 2010 a decision to split into two independent companies, ConocoPhillips, an upstream company, and Phillips 66, a downstream company. The company

⁴ Petroleum Economist, *Refining Survey*, September 2010, pp. 6-10.

also plans to either sell or close its refinery in Trainer, PA. Sunoco, an independent refining and marketing corporation, has left the refining sector, to concentrate on logistics and marketing, closing and attempting to sell its two refineries in the Philadelphia area.⁵

Capital Budgets

Capital projects in the oil industry are long-term commitments. For example, it may take 5 to 10 years for full production to begin after initial analysis of an oil field has been carried out. Once the field does start producing, it will likely continue to do so for years, with little technical or economic scope for varying output to reflect then-current market conditions.⁶ Similarly, construction or expansion of a refinery may take years to complete. As a result of the lagged, long-term characteristics of exploration, production, and refining activities, capital budgets are relatively stable, showing little year on year response to changing oil prices.

Political realities around the world limit the capital allocations the major oil companies can make. With most of worldwide reserves held by nations through national oil companies, the areas open to development by private firms, like the five major oil companies, are limited. Additional constraints exist with respect to the number of construction resources, drilling rigs, personnel, and other equipment and supplies available for exploration. In certain areas, at certain times, it is possible that higher capital budgets and expanded exploration and construction activities were partially consumed by higher wages and other costs, reducing the effectiveness of the capital program.

Bringing new oil supplies on to the market can be a double-edged sword for oil producers. While the oil companies need to expand their reserve bases to replace losses due to production, they, like the producing countries, may find it not in their interest to expand available supply too much, too quickly. When oil supplies flood the market and excess capacity rises to excessive levels, the price of crude oil can tumble. A sharp decline in the price is not in the interest of oil company profits, or the fiscal budgets of oil exporting nations around the world.

Capital expenditures are not strictly a use of net income by the oil companies, because capital expenditures are a before tax deduction from total revenues. Capital expenditures, as shown in **Table 9**, generally includes exploration expenses. However, exploration expenses are not necessarily a large part of capital expenditures. For example, in 2011 exploration expenditures for the five major oil companies totaled \$7.3 billion, about 5% of total capital expenditures. A part of capital investment is an offset to depreciation of existing assets, yielding net investment that is lower than the total capital expenditure. Also, capital expenditures might include acquisitions and other financial transactions which are not likely to enhance industry capacity.

Table 9. Capital Expenditures of the Five Major Oil Companies
(billions of dollars)

	2007	2008	2009	2010	2011
ExxonMobil	20.8	26.1	27.1	32.2	33.1
Chevron	n/a	22.8	22.2	21.8	29.1
BP plc	18.4	22.6	20.6	18.4	31.5
Royal Dutch Shell plc	26.9	35.1	26.5	26.9	31.1

⁵ Closure of these refineries has raised concern over Northeast heating oil supplies.

⁶ Technological improvements may enhance both production and the total recovery from the well over the long term.

	2007	2008	2009	2010	2011
ConocoPhillips	9.7	19.1	10.8	9.7	12.0
Total	75.8	125.7	107.2	109.0	136.8

Source: Company reports.

Notes: Worldwide expenditures.

Returns to Investors

The five major oil companies are private firms with a responsibility to generate returns for their investors, or shareholders. The primary ways this goal can be achieved in the short term are through dividend payments and share repurchases. Dividends are a direct distribution of earnings on a per share basis. They represent the most direct return on investment. Although dividends per share are generally identical for all shares, actual percentage returns to any particular investor or owner of shares vary depending on the actual share price paid by the actual owner.

Stock repurchase programs enhance shareholder value by reducing the number of shares outstanding. This increases dividends per share for any given level of net income, because there are fewer shares outstanding to allocate payment. Retired shares are usually held in the company treasury, and may generally be reissued at any time at the discretion of the management, generally without further filing or approvals required by the Securities and Exchange Commission. In effect, retired shares represent a liquid pool of potential capital that can be drawn upon by the company should attractive investment opportunities that require funding develop.

Table 10. Returns to Investors for the Five Major Oil Companies, 2011

(billions of dollars)

	Share Repurchase	Dividends
ExxonMobil	22.0	9.02
Chevron	n/a	6.0
BP plc	n/a	4.07
Royal Dutch Shell plc	1.1	10.5
ConocoPhillips	11.1	3.6

Source: Company earnings reports.

Notes: Totals of Chevron and BP plc shares were nearly constant from 2010 to 2011. ConocoPhillips share totals might reflect its re-organization activities.

Conclusion

The oil industry tends to become highly profitable when the price of crude oil rises. Since increases in the world price of oil tend to reflect general economic conditions, political developments, and the emergence of new markets, the increases in company profitability can be

viewed as windfall gains. Alternatively, the returns in periods of high oil prices could be looked at as the other side of the lower returns earned in periods of lower prices. The price of oil has not been permanently low, or high, since the 1970s. Future changes will likely again change the industry's financial position.

The capital expenditures of the companies have not succeeded in increasing their production of oil and natural gas. They have been successful in providing returns to their shareholders. To the extent that high oil prices can be expected to continue, the five major oil companies are likely to remain profitable and able to carry out their business plans. Small changes in the companies' net incomes or total revenues can be expected to only have small effects on their operations.

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